

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

Postbox 85, Curacao, N. A.

September 21, 1954

To: R. C. Bushland
From: A. H. Baumhover
Subject: Weekly report - Curacao

EGG MASS COLLECTION DATA
Number of fertile and sterile egg masses collected at goat pens

Date	1		2		3		4		5		10		Total		6		7		8		9		11		Total	
	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
9/13	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1
14	1	0	0	0	0	0	0	2	0	1	0	0	1	3	0	1	0	0	0	2	0	0	0	0	0	3
15	0	0	0	1	0	2	0	1	0	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	3
16	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	2	0	0	0	0	0	0	0	0	2	0
17	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	1	0	1	0	2	0	9	0	1	0	0	14	1	0	1	2	1	0	2	0	0	0	0	2	9

Weekly average per pen 2.5 masses; sterility 93%

Weekly average per pen 2.2 masses; sterility 82%

STERILE MALES RELEASED

9/14 - 41,040
9/16 - 35,590
9/17 - 42,550
Total 119,180

Note: Four of the sterile masses tabulated for the lower half (pens 1,2,3,4,5,10) and both sterile masses from #13 were abnormal as described in the report of September 13.

Pen #15 established 9/17 1 mile north of Lagoon, approximately midway between # 9 and #11; pen #12 discontinued 9/17.

SEP 23 1954

2523 932

ATLAS NOTATION DATA
EGG MASS COLLECTION DATA

Number of termites
collected at each

To: R. C. Bushland
From: A. H. Baumhauer
Subject: Weekly report - Curacao

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

Postbox 85, Curacao, N. A.
September 21, 1954

Weeks: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Weeks: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

STERILE MATES RELEASED

040.14 - 41/8
022.32 - 21/8
022.34 - 11/8

061.611 lastol

Note: Low to two to three mated pairs per colony. The number of mated pairs per colony is determined by the number of eggs laid. The number of eggs laid is determined by the number of eggs that are laid. The number of eggs that are laid is determined by the number of eggs that are laid.

Approximate number of eggs laid per colony. The number of eggs laid is determined by the number of eggs that are laid. The number of eggs that are laid is determined by the number of eggs that are laid.

SEP 23 1954

In response to Dr. Lindquist's memo of September 8 we will endeavor to increase the release rate in areas showing the highest populations. It is assumed that the designation of "hot spots" should be based on current egg mass records rather than past history. The past 2 weeks' egg mass records indicate that the areas surrounding pens #4 and #7 would require an increase in flies released under this plan.

As you will note we have continued to operate the extra pens for a period of 4 weeks rather than the period of 2 weeks originally planned. It was felt that more significant data would be obtained in this way.

As yet we have not found time to make observations on the number of released females visiting wounds during a one-day period. However, we have continued to observe frequently 1 or 2 females at various pens during the 10 or 15 minutes time required to inspect the goats for egg masses. During earlier periods in the experiment when as many as 5 to 10 egg masses were collected from a pen it was uncommon to observe more than 1 or 2 natural females feeding or laying during the time required to make the egg mass collections.

To supplement the egg mass data from the goat pens we plan to request the livestock owners to notify and allow us to examine any cases of myiasis occurring in their animals.

Note to Mr. Graham: I don't think we should risk holding any more colony flies for egging. We will plan to depend entirely on egg shipments from Orlando. Although the shipments of larvae with medium included in the fly shipments have been coming through in fine shape it is sometimes difficult to separate the larvae from the medium for infesting. Please try the air mail special delivery shipment of eggs (without medium) which you have suggested. Our home address is 64 Doormanweg, Damacor, Willemstad, Curacao N.A. As I understand it shipments mailed by 6:00 a.m. will reach us here the same evening.

Since we plan to begin this week using only goats with inactive wounds for egg mass collections we plan to bring 1 goat in from each pen on Monday and Thursday to be infested in the screened security pen on Tuesday and Friday. If we infested only once each week I do not believe that the presence of attractive wounds in the pens would be continuous. This plan would require egg shipments from Orlando on Monday and Thursday, however, any other 2 days in the week 3 or 4 days apart would be satisfactory. I realize that these special shipments will increase the work load for you, but since the fly shipments are somewhat erratic, the regularity of the special delivery shipments would be important.

Enclosed are tracings of the Curacao map to indicate the locations of the extra pens, 12, 13, 14, and 15. Unfortunately the description of the pen locations included in the weekly report of August 30 is not correct. Please disregard it.

Enc. 2

cc: A. W. Lindquist, A. J. Graham, G. W. Eddy

A. H. Baumhauer

In response to Dr. Lindquist's memo of September 8 we will endeavor to increase the release rate in areas showing the highest populations. It is assumed that the designation of "hot spots" should be based on current egg mass records rather than past history. The past 2 weeks' egg mass records indicate that the areas surrounding pens #4 and #7 would require an increase in flies released under this plan.

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Enc. 2
cc: A. W. Lindquist, A. J. Graham, G. W. Eddy

A. J. Bushland



X #15

Lagoon

St. Krais

Barber

X #14

Ronde Klip

X #12

N
↑

X
#4

SP
JOIS Bld

X #13

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

Postbox 85, Curacao, N. A.

SEP 7 1954
[Handwritten signature]

September 4, 1954

To: Dr. A. W. Lindquist

From: A. H. Baumhover

Subject: Weekly Reports

In reply to your memorandum of August 31, received September 3, I will submit a midweek report to be mailed from here on Thursday morning, in addition to the weekly report which is mailed on Tuesday morning.

Egg mass collections for the past 5 days from the 2 halves of the island are as follows:

	<u>Fertile</u>	<u>Sterile</u>
Lower end (pens 1,2,3,4,5, & 10)	2	8
<u>Upper end</u> (pens 6,7,8,9, & 11)	7	16
#12	2	3
#13	2	0
#14	3	2

The rainy period which began while you were here has intensified, however, we are hopeful that it will not have an adverse effect on our eradication attempt.

cc: R. C. Bushland

A. H. Baumhover

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

Postbox 85, Curacao, N. A.

September 6, 1954 SEP 9 1954

To: R. C. Bushland
From: A. H. Baumhover
Subject: Weekly report - Curacao

EGG MASS COLLECTION DATA

Date	Number of fertile and sterile egg masses collected at goat pens										Total	
	1	2	3	4	5	10	6	7	8	9	11	Total
	F	S	F	S	F	F	F	F	F	F	F	F
8/30	0	1	0	0	0	1	2	2	1	0	0	4
31	0	1	0	0	0	0	0	0	1	0	2	1
9/1	0	0	0	0	0	0	4	0	0	0	0	4
2	0	1	0	0	0	0	0	0	0	1	1	2
3	0	0	0	0	0	0	1	1	0	0	0	1
4	0	0	0	0	0	0	1	0	0	0	0	4
5	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	3	0	1	1	3	11	3	5	1	2	26
Weekly average per pen 2.3 masses; sterility 79%												
Weekly average per pen 6.6 masses Sterility 79%												

Sterile Males released

8/31 23,890
9/1 40,800

Correction: In my report of September 4th the 5 day total for the lower end should have been fertile-3, sterile-9.

cc: A. W. Lindquist
A. J. Graham
G. W. Eddy

A. H. Baumhover

for read - [unclear]
Dr. Bushland

SEP 13 1954

SEP 9 1954

Hon. A. A. M. Struycken
His Excellency
Governor of the Netherlands Antilles
Willemstad, Curacao
Netherlands West Indies

Dear Governor Struycken:

Enclosed is a progress report on our cooperative experimental work relating to the possibility of eradicating screw-worms by release of laboratory reared sterilized males over the entire island of Curacao. This report gives technical information for your records which will no doubt be of interest to you and your officials. The report covers the period through June 30. The next quarterly report will be made available to you about October 15.

We might add that the results of the work up to date are encouraging in that the screw-worm population is considerably lower than when the work was started and the release of irradiated flies is now reducing the number of fertile females by about 70 percent. If the present trend continues we expect to attain the objective of the experiment within a few months. Although the results look promising at the moment we are tempering our optimism with the realization that unforeseen natural forces might prevent the attainment of the objective to completely eliminate the pest.

We wish to express our appreciation for the excellent and whole-hearted cooperation extended to us by you and your officials. We want especially to commend the sincere work of your Mr. B. A. Bitter and his untiring efforts in the experimental program.

Sincerely yours,

A. H. Moseman

Director, Crops Research

Enclosure

cc: Dr. R. C. Bushland

Dr. Bushland

SEP 13 1954

SEP 9 1954

Hon. A. A. M. Sirpreken
The Embassy
Government of the Netherlands Indies
Batavia, Surabaja
Netherlands East Indies

Dear Governor Sirpreken:

Enclosed is a progress report on our cooperative experimental work relating to the possibility of establishing a new source of release of laboratory reared sterilized males over the entire island of Sumatra. This report gives technical information for your review which will be of interest to you and your officials. The report covers the period through June 30. The next quarterly report will be made available to you about October 15.

We might add that the results of the work up to date are encouraging in that the screen-worm population is considerably lower than when the work was started and the release of sterilized flies is now reducing the number of fertile females by about 70 percent. If the present trend continues we expect to attain the objective of the experiment within a few months. Although the results look promising at the moment we are maintaining our optimism with the realization that numerous natural factors might prevent the attainment of the objective to completely eliminate the pest.

We wish to express our appreciation for the excellent and whole-hearted cooperation extended to us by you and your officials. We trust especially to expand the sincere work of your Mr. A. A. Sirpreken and his entire staff in the experimental program.

Sincerely yours,

A. H. Mosman

Director, Crops Research

Enclosure

cc: Mr. R. C. Bushland

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

SEP 16 1954

Postbox 85, Curacao, N. A.

September 13, 1954

To: R. C. Bushland
From: A. H. Baumhover
Subject: Weekly report - Curacao

EGG MASS COLLECTION DATA

Subject: Weekly report - Curacao																											
Date		1		2		3		4		5		10		Total		6		7		8		9		11		Total	
		F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
9/6		0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	1	0	1	0	4
7		1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	0	0	0	0	1	0	3
8		0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	1
9		0	3	0	0	1	0	2	2	0	0	0	0	3	5	0	0	0	0	0	0	1	0	1	0	2	0
10		0	0	0	0	1	0	0	2	0	1	0	0	1	3	0	0	0	2	0	1	0	0	0	0	0	3
11		0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1
12		0	1	0	0	0	0	0	5	0	0	0	1	7	1	0	1	0	4	0	0	0	0	0	0	0	5
Total		1	8	0	0	2	1	2	14	0	1	0	1	5	25	0	1	0	12	0	1	1	1	1	2	2	17
Weekly average per pen 5.0 sterility 83%														Weekly average per pen 3.8 masses sterility 89%													

STERILE MALES RELEASED

9/7 21,623
9/10 55,460

Four of the egg masses (sterile) collected from the upper half of the island appeared to be abnormal; the masses were small, loosely laid and the individual eggs were of irregular shape. Since the goal is to release 68,000 flies of both sexes each week, according to my calculations assuming recovery of 1 out of 15 flies ovipositing these 4 egg masses would indicate the possibility that 0.0004% of the released females may have laid a small, abnormal egg mass.

cc: A. W. Lindquist
A. J. Graham
G. W. Eddy

A. H. Baumhover

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

SEP 16 1954

Fly Trap Collection - Trap #2 Located near Laboratory

<u>Trapping Period</u>	<u>No. qts</u>	<u>No. C.H.</u>	<u>Remarks</u>
3/30	2.2	16	
3/30 - 4/9	1.3	10	
4/9 - 4/21	0.4	1	9 lizards in trap
4/21 - 5/1	1.4	3	
5/1 - 5/5	2.2	11	
5/5 - 5/14			No collection
5/14 - 5/21	1.4	5	
5/21 - 5/31	5.9	31	Small - appear to be media reared
5/31 - 6/8	2.8	13	Small - appear to be media reared
6/8 - 6/17	2.8	7	Small - appear to be media reared
6/17 - 6/24	3.0	2	
6/24 - 7/2	1.0	1	
7/2 - 7/9	2.0	1	
7/9 - 7/16	2.6	2	
7/16 - 7/24	1.6	11	Small - appear to be media reared
7/24 - 8/4	1.0	12	Small - appear to be media reared
8/4 - 8/18	1.6	9	Collection badly damaged
8/18 - 9/2	1.4	13	Small - appear to be media reared

SEP 16 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

Fly Trap Collection - Trap #2 Located near laboratory

Trapping Period	No. dcs	No. C.H.	Remarks
8/18 - 8/2	1.4	13	Small - appear to be media reared
8/4 - 8/18	1.6	9	Collection badly damaged
7/24 - 8/4	1.0	12	Small - appear to be media reared
7/16 - 7/24	1.6	11	Small - appear to be media reared
7/9 - 7/16	2.6	2	
7/2 - 7/9	2.0	1	
6/24 - 7/2	1.0	1	
6/17 - 6/24	3.0	2	
6/8 - 6/17	2.8	7	Small - appear to be media reared
6/31 - 6/8	2.8	13	Small - appear to be media reared
5/21 - 6/31	5.9	31	Small - appear to be media reared
5/14 - 5/21	1.4	5	
5/5 - 5/14	2.2	11	No collection
5/1 - 5/5	1.4	3	
4/21 - 5/1	1.4	3	
4/9 - 4/21	0.4	1	3 lizards in trap
3/30 - 4/9	1.3	10	
2/30	2.2	16	

SEP 20 1954

Post box 85
Caro100 NA
Sept 15, 1954

To: Dr. Lindquist
From: A.H. Baumhauer
Subject: Midweek report

Egg mass record for Mon.,
Tues & Wed. is as follows:

	<u>Fertile</u>	<u>Sterile</u>
Lower end	1	9
Upper end	0	7
# 12	0	1
# 13	0	1
# 14	0	0

Four of the sterile masses
were small, irregular and
could have been laid by
released females.

AH Baumhauer

cc R. C. Bushland

6/26/54
Postbox 85
Curacao, N. A.

Bush:

Egg mass record for the week 9/20-26 will
probably be:

Pens 1,2,3,4,5,10 Pens 6,7,8,9,11

Southern half Northern half

F	S	F	S
0	1	0	9

Hope you are back in A-1 shape by this time
and feeling fine.

Best wishes from us all.

al

[Handwritten mark]

Box 25
Postbox 25
Toronto, W. A.

Thank:

See next record for the week 2-20-22 will

probably be:

Page 1, 2, 3, 4, 5, 10 Page 6, 7, 8, 9, 11

Reprints will Northern half

7	8	9	10
1	2	3	4

Hope you are back in A-1 shape by this time
and feeling fine.

Best wishes from us all.

CC

September 27, 1954

To: R. C. Bushland
From: A. H. Baumhoyer
Subject: Weekly report - Curacao

EGG MASS COLLECTION DATA
Numbers of fertile and sterile egg masses collected at goat pens

Date	1	2	3	4	5	10	Total	6	7	8	9	11	Total		
	F	S	F	S	F	S	F	S	F	S	F	S	F	S	
9/20	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	0	0	0	0	0	0	0	0	0	3	0	1	0	4	
23	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
24	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	6	0	2	0	0	9

13 14 15
Date F S F S F S

Sterile Males Released and Percent Emergence
Date Number Percent emergence

9/20	32,120	77
9/21	12,300	62
9/23	9,590	73
9/25	12,900	53
	9,670	84

Total 76,580

Pen #13 was discontinued 9/25; pen #14 was discontinued 9/24
The 2 sterile egg masses recorded for pen #13 appeared to
be abnormal.

cc: A. W. Lindquist
A. J. Graham
G. W. Eddy

A. H. Baumhoyer

O. S. R.

[illegible]

September 5th 1824

группа: мексиканская - ольгаса
 Елоч: у. н. вильявилья
 Ло: н. с. вильявилья

5
OCT 4 1954

Sept 30, 1954

Post box 85

Caralao, N.A.

To: Dr. Lindquist

From: A. H. Baumhower

Subject: Midweek report - Caralao

Only egg ^{masses} collected 9/27, 28, & 29 were
8 sterile at pen #5. Two of these were
definitely abnormal. 2 more were very
small - 15-20 eggs each.

If the released flies are laying what appear
to be normal egg masses in addition to the
abnormal masses it will interfere with
the decision of when to stop release unless
you feel we can base that decision on the
last fertile egg mass collected. Perhaps
the 7500 r dosage will help solve the prob-
lem. If it doesn't it seems to me we will be
forced to tag the released flies. A. H. Baumhower
cc R. C. Bushland

